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PTO/SB/17 (12-04v2)

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Effective on 12/08/2004.
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).**FEE TRANSMITTAL**
For FY 2005☐ Applicant claims small entity status. See 37 CFR 1.27**TOTAL AMOUNT OF PAYMENT** (\$) 500.00**Complete if Known**

Application Number	09/732,674
Filing Date	December 8, 2000
First Named Inventor	Ralph Coleman Hedden
Examiner Name	Michael J. Moore, Jr.
Art Unit	2666
Attorney Docket No.	H0026187-5723

METHOD OF PAYMENT (check all that apply)☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____☒ Deposit Account Deposit Account Number: 01-1125 Deposit Account Name: Honeywell Int'l, Inc.

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee☐ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☐ Credit any overpayments**WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**FEE CALCULATION****1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES**Fee Description**

Each claim over 20 (including Reissues)

Each independent claim over 3 (including Reissues)

Multiple dependent claims

Fee (\$)	Small Entity Fee (\$)
50	25
200	100
360	180

Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)
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- 20 or HP = _____ x _____ = _____

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)
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- 3 or HP = _____ x _____ = _____

HP = highest number of independent claims paid for, if greater than 3.

Multiple Dependent Claims	Fee (\$)	Fee Paid (\$)
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3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
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- 100 = _____ / 50 = _____ (round up to a whole number) x _____ = _____

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): Fee for Appeal Brief (37 C.F.R. Sec. 1.17(c))

Fees Paid (\$)

500.00

SUBMITTED BY

Signature

Registration No. 34,116
(Attorney/Agent)

Telephone 505-800-0269

Name (Print/Type) Dennis F. Armijo

Date October 14, 2005

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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DATE MAILED: 10-14-05 SBU: H0026187-5723
PATENT APPLICATION FOR: DIGITAL SIGNAL ROUTE DETERMINATION
MODEL FOR AVIATION
INVENTOR(S): RALPH COLEMAN HEDDEN
SERIAL NO.: 091732, 1674

THE FOLLOWING HAS BEEN RECEIVED IN THE U.S. PATENT AND TRADEMARK OFFICE
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Attorney Docket No.: H0026187-5723

Attorney: KURT LUTHER
Outside Counsel: DENNIS ARMIJO



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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

I hereby certify that this paper in triplicate, and a fee, are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. § 1.10 on the date indicated above, addressed to the Mail Stop Appeal Brief-Patents, Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450, on the 14th day of October, 2005.


Dennis F. Armijo, Registration No. 34,116

H0026187-5723US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:	
RALPH COLEMAN HEDDEN	
Serial No.: 09/732,674	Art Unit: 2666
Filed: 12/08/2000	Examiner: Moore Jr., Michael J.
For: Digital Signal Route Determination Model for Aviation	

APPELLANT'S APPEAL BRIEF

To: Mail Stop Appeal Brief-Patents
Commissioner of Patents
PO Box 1450
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Honorable Assistant Commissioner for Patents:

As provided in 37 C.F.R. § 1.192, Appellant files this Appeal Brief in triplicate in connection with the above-identified application with the Board of Patent Appeals and Interferences ("Board").

The requisite government fees provided for in 37 C.F.R. § 1.17(c) for a large entity in the amount of \$500.00 for filing this Appeal Brief are hereby authorized to be withdrawn from the Deposit Account Number 01-1125 for Honeywell International, Inc..

(1) Real Party in Interest

The real party in interest is Honeywell International, Inc.

(2) Related Appeals and Interferences

No other appeals or interferences will directly affect, be directly affected by, or have a bearing on the Board's decision in this appeal.

(3) Status of Claims

Claims 1-5, 7-16, and 18-20 are pending in the present application and have been finally rejected and are the basis for this appeal. The pending claims are attached as Appendix A.

(4) Status of Amendments

After prosecution on the original application was commenced, an RCE application was filed on May 26, 2004 which requested an examination on an amendment filed and not entered on April 6, 2004. The first amendment from the RCE application dated February 15, 2005 was entered. The amendment dated July 27, 2005, was entered; however no claims were amended. The affidavit of the inventor, Ralph Coleman Hedden, submitted on July 27, 2005, was entered. The latest version of the amended claims was entered on February 15, 2005. There were no amendments made subsequent to the final rejection. The claims from the February 15, 2005 amendment are reflected in Appendix A.

(5) Summary of the Invention

The present invention as claimed is a method of automatically determining a route from more than one Digital Service Provider depending on user selected criteria. This is accomplished by tagging each digital message with a priority tag, based on the user selected criteria, and using overlay software to select the best route. Route in this context is defined in the specification as the network itself or combinations of networks, not the route within a specific network. The routes defined in the specification are specifically set out in an example using the inventions on page 13, line 19 through page 15, line 5. In this example a very high frequency (VHF) route and two SATCOM networks are the “routes”. This is software that is actually added to the message itself. The present invention does not define a scheme for selecting the best route within a network but rather uses the tag to determine which network best meets the user or customer selected criteria or the expectation of the tag. The premise for the presently claimed invention is that a given network can and does meet its advertised characteristics. Based on these advertised characteristics, the message is routed to the network that best meets the tagged expectations (user chosen routing priority criteria). The present invention does not add intelligence to a given network itself. The present invention assumes neither a smart nor dumb network, it only assumes a network will operate as advertised. In addition this invention discusses the updating of the information on the “routes” if the provider changes the characteristics, such as cost.

Claim 1 is the representative independent claim for this appeal. The claim is set forth and is supported by the cited page numbers and drawing elements as indicated in parentheses.

A method for selecting a Datalink Service Provider route for each individual digital message, the method comprising the steps of:

- a) providing a unique prioritization tag (page 10, line 10, element **10** of Fig. 5) for the each individual digital message based on factors provided by Datalink Service Providers (page 10, lines 10-13 and page 10, line 18 through page 11, line 7, Figs. 3, 4 and elements **20** through **50** of Fig. 5), the unique prioritization tag comprising user chosen routing priority criteria selected from the factors (page 10, lines 8-9 and Fig. 5);
- b) supplying the prioritized criteria from the user to an overlay software (page 8, line 14 through page 10, line 22, steps **1-4** of Fig. 4 and Fig. 5);
- c) automatically choosing the Datalink Service Provider route by evaluating the prioritized criteria in the overlay software (page 8, lines 16-17, 19-20, page 9, lines 3-8 and Figs. 3 and 4); and
- d) routing the each individual digital message through the chosen Datalink Service Provider route (page 8, lines 19-21, page 10, lines 10-13 and element **60** of Fig. 5).

(6) Issues

WHETHER CLAIMS 1, 4, 5, 7-14, 16 AND 18-20 ARE ANTICIPATED BY KAPLAN ET. AL., (U.S. PATENT NO. 6,144,641) UNDER 35 USC §102(e)

WHETHER CLAIMS 2, 3 AND 15 ARE UNPATENTABLE OVER KAPLAN, ET AL., IN VIEW OF KUNG ET AL., UNDER 35 USC § 103(a)

(7) Grouping of Claims

All of the claims, claims 1-5, 7-16 and 18-20, stand or fall together.

(8) Arguments

WHETHER CLAIMS 1, 4, 5, 7-14, 16 AND 18-20 ARE ANTICIPATED BY KAPLAN ET. AL., (U.S. PATENT NO. 6,144,641) UNDER 35 USC §102(e)

In the latest office action, claims 1, 4, 5, 7-14, 16, and 18-20 were rejected under 35 USC §102(e) as being anticipated by Kaplan, et al.. The present invention claims a method of tagging each digital message with a priority, and using overlay software to select the best route. Route in this context is defined in the specification as the network itself or combinations of networks, not the route within a specific network. This is software that is actually added to the message itself. The present invention does not define a scheme for selecting the best route within a network but rather uses the tag to determine which network best meets the expectation of the tag. The premise for the presently claimed invention is that a given network can and does meet its advertised characteristics. Based on these advertised characteristics, the message is routed to the network that best meets the tagged expectations (user chosen routing priority criteria). The present invention does not add intelligence to a given network itself. The present invention assumes neither a smart or dumb network, it only assumes a network will operate as advertised.

Kaplan, et al., as described in the abstract is "A telecommunications switching system employing multi-protocol routing optimization which utilizes predetermined and measured parameters in accordance with a set of user priorities in determining the selection of a telecommunications path to be utilized for transmitting a data file to a remote destination. The switching system has a first memory for storing the data file to be transferred, a second memory for storing predetermined parameters such as cost data associated with each of the telecommunications paths, a third memory for storing a set of user priorities regarding the transmission of data files, and means for measuring the value of variable parameters such as file transfer speed associated with each of the telecommunications paths. Processor means are operatively associated with the second and third memories and the variable parameter measuring means for

determining which of the plurality of telecommunications paths should be utilized for transferring the data file in accordance with the set of user priorities, the predetermined telecommunications path parameters, and the measured variable parameters. The switching system further comprises input means for allowing a user to change the user priorities in the third memory prior to transmitting a file". To simplify the differences between the Kaplan device from the presently claimed invention the following is provided. Kaplan takes the data to be transferred and stores it in memory, stores the predetermined parameters in memory and uses a measuring device to confirm these parameters and puts the users priorities in memory, and from all of these steps a determination is made as to which path in a network to use. The present invention as claimed takes parameters as provided by more than one Datalink Service Provider, the user then selects which parameters are important and prioritizes the parameters for each message and a prioritization tag is added to the message which is then sent to a software component that then sends the message through a Datalink Service Provider that closely meets the user selected prioritization criteria.

The biggest and most significant difference between the Kaplan patent and the presently claimed invention is the "tagging of the message". Kaplan does not teach or imply tagging anything. A "tag" is given a specific meaning in the specification. "The invention identifies various priorities associated with a given digital message, tags this priority to the message, and subsequently uses this information to control the media choice and/or the route within a media." Page 7, line 22. "Tagged" is the term used to define the process of adding software coding to an individual message that defines priority of a specific message. Once a message is Tagged, the Overlay software can determine the most appropriate route. (see Figure 3)." Page 8, line 17. "Fig. 5 is offered as an example of how the process will work. In this example the "customer" has defined cost as the highest priority. Each message type will preferably be Tagged, step 10, when it is created so that the Overlay software, steps 20-50, can determine the priorities that are applicable and then choose an appropriate route, step 60. The

Tagging of a message, step 10, can be accomplished in a variety of ways. These include a simple manual input from the user, automatically based on where it originates or how it is created. The updating of the information used in the tables and algorithms is also shown, step 80.” Page 10 line 8.

In independent claims 1 and 14, the feature of tagging and the basic concept of overlay software and how they are utilized to select a Datalink Service Provider is specifically included. Neither of these core concepts are discussed or implied in the Kaplan patent. Kaplan teaches that user priorities are stored in memory and automatically accessed as required. These priorities are then weighted by a multiplier based on certain criteria. See column 6, lines 29-42. In addition, Kaplan validates or tests the route, as taught by lwata, another prior art reference cited by the Examiner in the previous office action. Kaplan does not discuss or imply the use of any type of tag. In the pending claims, a user manually selects his prioritization criteria based on the advertised route criteria. No validation or testing takes place. No weighting takes place; the user uses the advertised criteria of the route as provided by the Datalink Service Provider. The prioritization criteria is not kept in a memory, but is manually selected by the user from a list or brochure provided by the different Datalink Service Provider. The route expectations are part of an overlay software which reviews each message tag and determines which advertised route best meets the tag. “Tag” as defined in the specification is like a flag. For example, the overlay software reviews each message tag and if the tag is “hypothetically” red, all the messages that are tagged red are sent via a first route. If the tag is blue, all the messages tagged blue will be sent via a second route. Kaplan, or the combination of Kaplan, and any of the other cited prior art does not teach or imply this unique combination of features.

In addition an affidavit by the inventor Ralph Coleman Hedden was provided and entered. The affidavit refuted each and every erroneous contention made by the Examiner. The affidavit corroborated the definition of the tagging element of the claims

with the specification. From the significant differences as set forth between the present invention and the cited prior art and the features in the claims that are not discussed or implied in the prior art, it is evident that the independent claims are allowable.

The Examiner in his office actions is confusing the term “tag” with the relative weights chosen by a user in Kaplan. The Examiner in the final office action dated May 11, 2005, on page 2 states: “Providing a unique prioritization tag for the each individual digital message based on factors provided by Datalink Service Providers, the unique prioritization tag comprising user chosen routing priority criteria’ is anticipated by the relative weights (prioritization tag) chosen by a user that are stored in user priorities memory 32 as spoken of on column 6, lines 29-42 and that are set based upon the predetermined parameters and measurable parameters (factors shown in Tables A and B) of the different routes (Datalink Service Providers) obtained in path analysis block 24 of Figure 1.” The section of the Kaplan patent cited by the Examiner reads: “A user may customize the relative weights given to each of the variables set forth in Tables A, B in accordance with his specific requirements as stored in user priorities memory 32. These fixed weighting values would be stored in a memory in the switching system and used in conjunction with the routing methodology for all files transferred in accordance with the invention. The weighting values are used as multipliers for the variables in the algorithm in order to allow the user to customize the algorithm as desired. For example, a user may want to emphasize the \$security(i) parameter in the analysis, and may then specify a weight multiplier of (for example) two so that the \$security(i) parameter is weighted twice as much as if the \$security(i) parameter were left in the default state”. First of all, the word “tag” or any similar word is not contained in the cited section or in any part of the prior art patent. Secondly, the Examiner erroneously infers that using fixed weighting values that are stored in memory in Kaplan somehow is similar to tagging as defined by the applicant in the present application. The tag in the claims is physically attached to the digital message. There is no memory for in the present claims for placing weighted values. In Kaplan nothing is physically attached to the

digital messages and the weighted values are fixed and not manually selected for each digital message based on user defined criteria for that message. Further, the Applicant filed an affidavit countering the assertions made by the Examiner, however he merely dismissed the contents of the affidavit indicating that "it is not persuasive".

A fundamental principle contained in 35USC §112, second paragraph is that applicants are their own lexicographers. They can define in the claims what they regard as their invention essentially in whatever terms they choose so long as any special meaning assigned to a term is clearly set forth in the specification. See MPEP §2111.01. Applicant may use functional language, alternative expressions, negative limitations, or any style of expression or format of claim which makes clear the boundaries of the subject matter for which protection is sought. As noted by the court in *In re Swinehart*, 439 F.2d 210, 160 USPQ 226 (CCPA 1971), a claim may not be rejected solely because of the type of language used to define the subject matter for which patent protection is sought. Thus it is abundantly clear that the term "tag" as used in the claim means an identifier attached to the digital message. The claim specifically requires these features in part a) of claim 1. Kaplan fails to teach or imply these features. Kaplan does not add a tag to the digital message.

WHETHER CLAIMS 2, 3 AND 15 ARE UNPATENTABLE OVER KAPLAN, ET AL., IN VIEW OF KUNG ET AL., UNDER 35 USC § 103(a)

Claims 2, 3 and 15 are dependent claims. Thus, due to the allowability of the dependent claims, these claims are also allowable.

Applicant respectfully urges that the structure of the invention as claimed by Applicant differs materially from the structure disclosed in the references cited by the Examiner. Further, the structural elements of the claimed invention do not cooperate as

disclosed in the references. There is no teaching or suggestion in the references to support the notion that the invention is anticipated or obvious in view of the combination of references cited by the Examiner in the Final Office Action.

Conclusion

In view of the foregoing, Applicant respectfully requests that the Board of Patent Appeals and Interferences overrule the Final Rejection of Claims 1-5, 7-16 and 18-20 over the cited art, and hold that Appellant's Claims are allowable over the references.

(9) Appendix

As previously indicated, an Appendix containing a copy of the claims involved in this appeal is attached as Appendix A.

Respectfully submitted,



Dennis F. Armijo, Reg. No. 34,116

For Appellant

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APPENDIX A
to Appeal Brief of Appellant

CLAIMS

1. A method for selecting a Datalink Service Provider route for each individual digital message, the method comprising the steps of:
 - a) providing a unique prioritization tag for the each individual digital message based on factors provided by Datalink Service Providers, the unique prioritization tag comprising user chosen routing priority criteria selected from the factors;
 - b) supplying the prioritized criteria from the user to an overlay software;
 - c) automatically choosing the Datalink Service Provider route by evaluating the prioritized criteria in the overlay software; and
 - d) routing the each individual digital message through the chosen Datalink Service Provider route.
2. The method of claim 1 further comprising the step of tracking the chosen Datalink Service Provider route for accounting purposes.
3. The method of claim 2 further comprising the step of preparing a billing record of the chosen Datalink Service Provider route.
4. The method of claim 1 further comprising repeating steps a) through d) for a next user.

5. The method of claim 1 further comprising repeating steps a) through d) for a next digital message.

6. (Canceled)

7. The method of claim 1 wherein the step of choosing a Datalink Service Provider route is performed at a member of the group consisting of a vehicle, a user initiation facility, and a government control facility.

8. The method of claim 1 wherein the step of providing a unique prioritization tag comprises providing a manual tag.

9. The method of claim 1 wherein the step of providing a unique prioritization tag comprises providing an automatic tag.

10. The method of claim 1 wherein said overlay software comprises at least one of the following:

- lookup tables;
- logarithmic calculations and real-time information on cost;
- available Datalink Service Provider routes; and
- Datalink Service Provider route status information.

11. The method of claim 10 further comprising the step of updating the real-time information.

12. The method of claim 11 wherein the step of updating comprises time-based updates.

13. The method of claim 11 wherein the step of updating comprises querying at least one Datalink Service Provider.

14. An avionics routing method for an individual digital message, the method comprising the steps of:

- a) providing a unique prioritization tag for the individual digital message based on factors provided by at least two Datalink Service Providers, the unique prioritization tag comprising user chosen routing priority criteria selected from the factors;
- b) supplying the priority criteria from the user to an overlay software;
- c) evaluating the priority criteria by the overlay software;
- d) automatically choosing a Datalink Service Provider route from the at least two Datalink Service Provider service providers by the overlay software; and
- e) transmitting the individual digital message through the chosen Datalink Service Provider route.

15. The method of claim 14 further comprising the step of tracking the chosen Datalink Service Provider route for accounting purposes.

16. The method of claim 14 further comprising repeating steps a) through e) for a next digital message.

17. (Canceled)

18. The method of claim 14 wherein said overlay software comprises at least one of the following:

lookup tables;
logarithmic calculations and real-time information on cost;
available Datalink Service Provider routes; and
Datalink Service Provider route status information.

19. The method of claim 1 wherein said prioritized criteria comprises at least one of the following criteria:

- a) cost of sending the digital message;
- b) speed of delivery of the digital message;
- c) security of the digital message; and
- d) integrity of the digital message.

20. The method of claim 14 wherein said prioritized criteria comprises at least one of the following criteria:

- a) a cost of sending the digital message;
- b) speed of delivery of the digital message;
- c) security of the digital message; and
- d) integrity of the digital message.